





萍乡市荣建环保化工填料有限公司

Pingxiang Rongjian environmental protection chemical packing Co.,LTD.

 No.1-269, ZoneB, Xiangdong Industrial Park,
Xiangdong District, Pingxiang City, Jiangxi ,China

 0799-6233165/6665
+86 19067932043
 WhatsApp: +86 18079994732

 lynn@pxrjhb.cn
 <https://www.rjecochem.com/>



. Saving Energy Connect Us World And Future

. Located in Pingxiang City

--Was famous as the "Hometown of Tower packing."

With over 15 years of industry experience in Manufacturing&Exporting.



荣建环保一切为您的需求服务!
Rongjian Environmental protection
—Everything for your Needs!

萍乡市荣建环保化工填料有限公司位于“填料之乡”的江西省萍乡市湘东区湘东镇工业园，是一座现代化代的花园式工厂。公司拥有雄厚的技术力量和各种先进生产设备及检测手段齐全的质量保证体系。为了公司更好的发展，强化内部的管理，公司已通过ISO9001-2000质量体系认证。产品已广泛用于全国各地电力、石油、化工、冶金、环保、制药、航天、航空等行业，并远销海外。我们的产品质量稳定可靠，在同行业中达到了先进水平，并且受到了用户的一致好评。我们还致力于技术革新和科研开发，并以客户的实际需要为方针，大限度地优化产品的性能。

Pingxiang Rongjian Environmental Protection Chemical Packing Co., Ltd. is located in the industrial park of Xiangdong Town, Xiangdong District, Pingxiang City, Jiangxi Province — known as the “Hometown of Packings”. It is a modern garden-style factory. The company boasts strong technical capabilities, advanced production equipment, and a comprehensive quality assurance system with complete inspection facilities. To support its continued development and strengthen internal management, the company has obtained ISO9001-2000 quality system certification. Its products are widely used across China in industries such as electric power, petroleum, chemical, metallurgy, environmental protection, pharmaceuticals, aerospace, and aviation, and are also exported overseas. Our products are stable and reliable in quality, reaching advanced levels in the industry, and have been well received by customers. We are also committed to technological innovation and R&D, and take customers’ actual needs as our guideline to maximize product performance optimization.

FACTORY DISPLAY

We have a professional production factory



企业文化

Company Culture

1、企业使命 Corporate Mission

让所有员工感受成长和安心
让所有客户感到满意和放心
让所有员工都分享收获和财富

- Enable all employees to experience growth and peace of mind
- Ensure all customers feel satisfaction and confidence
- Allow all employees to share in the gains and wealth

2、企业理念 Corporate Philosophy

荣建环保，以优质的产品诚心服务客户

- Rongjian Environmental Protection — Sincerely serving customers with high-quality products

3、企业精神 Corporate Spirit

创新、信心、激情、回报

- Innovation, Confidence, Passion, Reward




厂房操作现场
Plant operation site





水质

Water quality



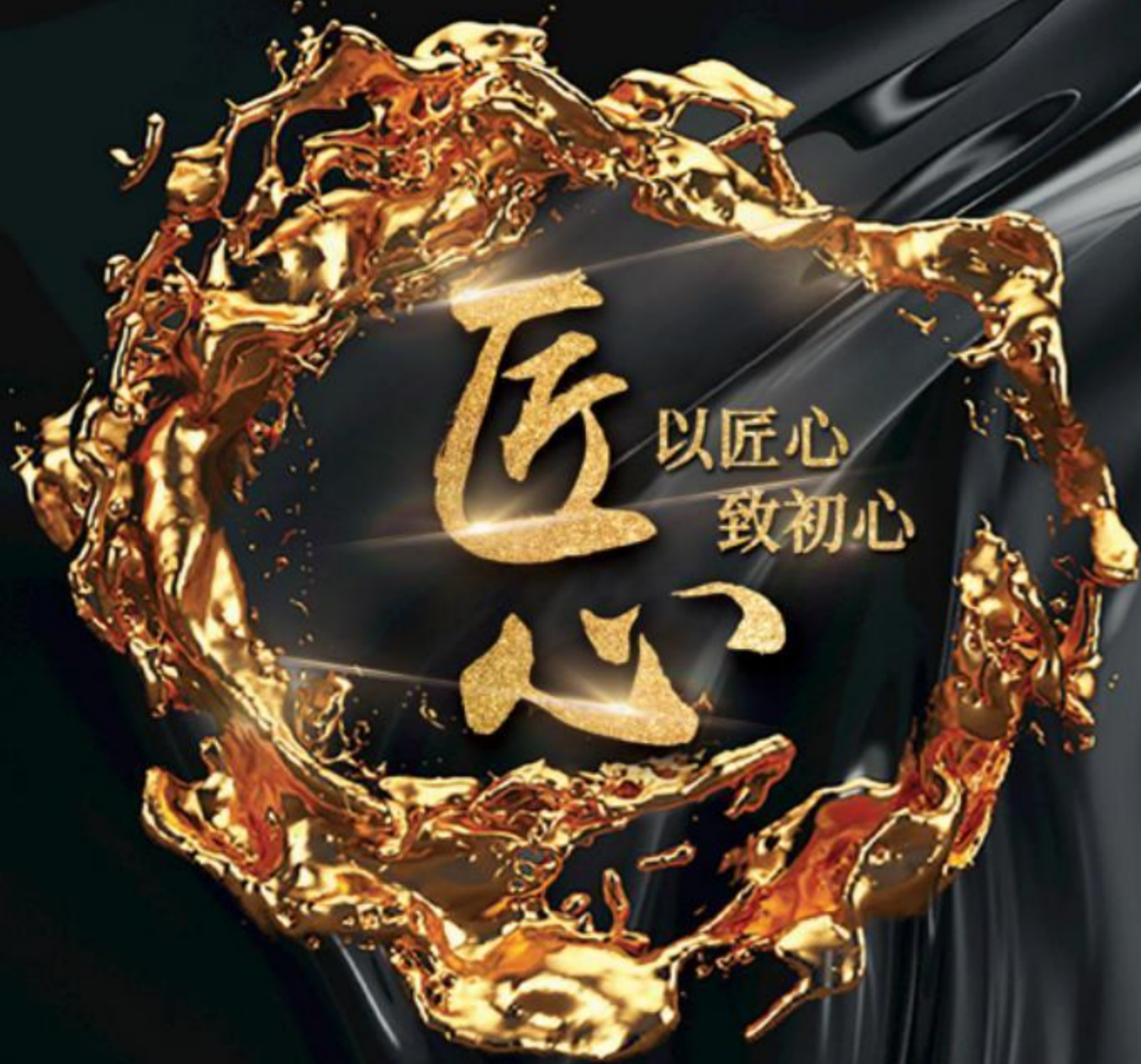
 绿色过滤
Filter water quality



 净化水质
Purified water quality



- 01-02
Honeycomb Inclined Tube Packing
- 03-04
Multi-Faceted Hollow Sphere / Raschig Ring
- 05-06
Spherical Suspended Packing / Biosphere
- 07-08
MBBR suspended biological filler
- 09-10
Aeration System / Microporous Aerator+Accessories
- 11-12
Microporous Aerator+Accessories /
Microporous Aeration Pipe + Accessories
- 13-14
Single hole aerator
- 15-16
Combination packing /
Rope type biological filler
- 17-18
Three-dimensional elastic packing /
Curtain packing
- 19-20
Filter head filter cap /
Rotary grille decontamination
machine





Introduction to physical objects and products

Based on Hazen's "shallow depth sedimentation" theory, this filler has a large wetted perimeter and small hydraulic radius, ensuring good laminar flow during operation. Particle settling is undisturbed by turbulence, accelerating solid-liquid separation and shortening settling distance.

Widely used in water supply and drainage over the past decade, this filler offers broad applicability, high efficiency, and a small footprint. It is used for influent sand removal, industrial and domestic water sedimentation, wastewater settling, oil separation, and tailings thickening. Suitable for both new projects and old tank retrofits, it delivers strong economic benefits. Straight tubes serve as microbial carriers in high-rate biological filters, tower filters, submerged filters (contact oxidation tanks), and rotating biological contactors for biochemical treatment of industrial organic wastewater and municipal sewage.

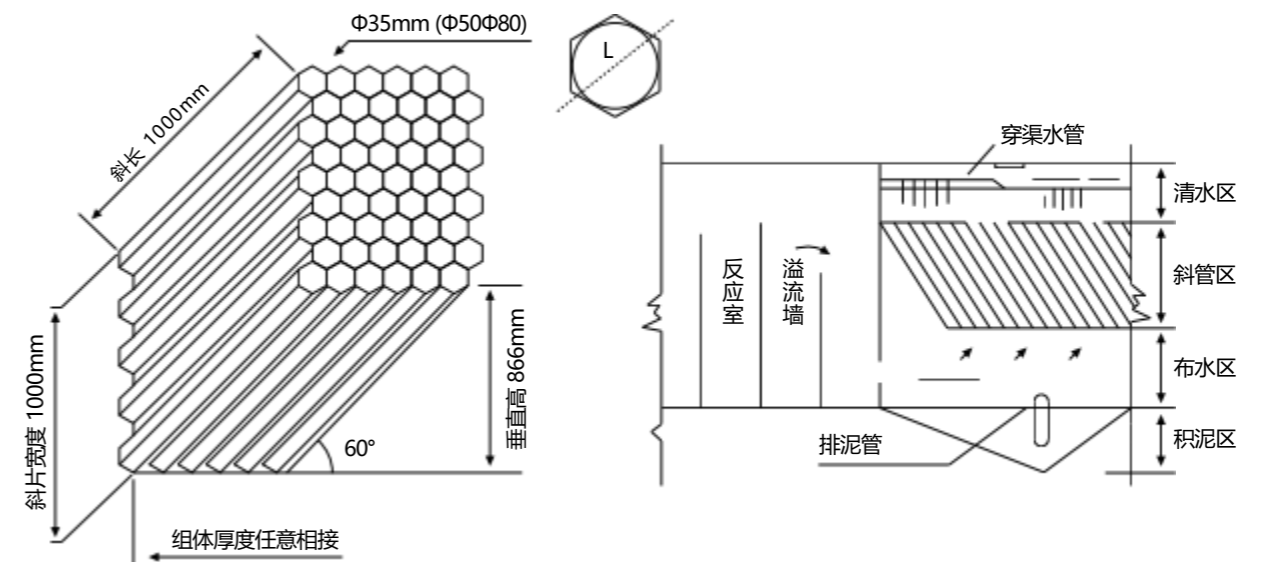
Materials: HDPE+PP copolymer, PP, PVC, FRP, and others. Based on market analysis and process conditions, we insist on HDPE+PP.

Structure:

Tubular type: Welded from small hexagonal tubes — high performance, strong load capacity, long life.

Sheet type: Composed of corrugated plates — compact, easy to transport, good performance.

Schematic diagram of product structure



Product Technical Specifications

规格 Specification (mm)	管壁厚 Pipe Wall Thickness (mm)	斜高 / 斜宽 / 垂直高 Slant height / Slant width / Vertical height (mm)	倾斜角 angle of inclination	比表面积 specific surface area (m ² /m ³)
Φ35	0.5-0.8	1000*1000*866	60°	350
Φ50	0.5-0.8	1000*1000*866	60°	350
Φ80	0.6-1.0	1000*1000*866	60°	120

Encyclopedia: Hazen's Shallow Tank Theory

Assume the length of the inclined-tube sedimentation tank is L, the horizontal flow velocity in the tank is V, and the settling velocity of particles is u₀. Under ideal conditions, L/H = V/u₀. It can be seen that when the values of L and V remain constant, the shallower the tank depth, the smaller the suspended solid particles that can be removed. If horizontal clapboards are used to divide H into 3 layers, each with a depth of H/3, under the condition that u₀ and V remain unchanged, particles with settling velocity u₀ can be removed with only a length of L/3. That is to say, the total volume can be reduced to one-third of the original. If the tank length remains unchanged, since the tank depth is H/3, the horizontal flow velocity can be increased to 3V, and particles with settling velocity u₀ can still be removed, which means the treatment capacity is tripled. Meanwhile, dividing the sedimentation tank into n layers can increase the treatment capacity by n times. This is the shallow-pool theory proposed by Hazen in the early 20th century.



► Introduction to physical objects and products

It is composed of two hemispheres forming a spherical shape, with 12 semi-sector blades on each hemisphere. The sectors of the two hemispheres are staggered relative to each other. The multi-faceted hollow sphere has a reinforcing ring around its entire middle circumference, with spherical lobes both above and below the ring. The upper and lower spherical lobes interlock with each other and are arranged radially along the central axis.

► Feature

- . High gas velocity, numerous blades, and low resistance;
- . Large specific surface area, enabling sufficient gas-liquid exchange;
- . Multi-faceted hollow balls feature high production capacity, low resistance, and large operating flexibility;
- . Light weight, high strength, large free space, high temperature resistance, corrosion resistance.

► Product Application

It is widely used in environmental protection equipment such as chlorine removal towers, oxygen removal towers, carbon dioxide removal absorption towers, waste gas purification towers, and acid mist purification towers.

► Product Technical Specifications

规格 Specification (mm)	比表面积 Specific surface area (m ² /m ³)	空隙率 Porosity	堆积重量 Accumulated weight (Kg/m ³)	堆积个数 Number of accumulations (个/m ³)	安全使用温度 Safe operating temperature (°C)
Φ25	460	0.84	95	85000	<90
Φ38	320	0.88	65	22500	<90
Φ50	236	0.90	40	11500	<90
Φ76	206	0.92	40	3000	<90



► Introduction to physical objects and products

Plastic garland packing, also known as Taylor garland packing, is an ellipsoid-shaped packing formed by interlocking multiple circular rings, with an additional reinforcing rib in the middle shaped like an "A". This greatly improves the compressive strength of the garland, while the packing also features the advantages of common packings such as large flux and low pressure drop. Owing to the high liquid holdup in the voids of the packing, the liquid can stay longer in the tower, thereby increasing the contact time between the gas and liquid phases and enhancing the mass transfer efficiency of the packing. Polypropylene packing is characterized by large voidage, low pressure drop and height of mass transfer unit, high flooding point, sufficient gas-liquid contact, low specific gravity and high mass transfer efficiency, and is mostly used in gas scrubbing and purification towers.

► Product Technical Specifications

规格 Specification (mm)	比表面积 Specific surface area (m ² /m ³)	空隙率 Porosity	堆积重量 Accumulated weight (Kg/m ³)	堆积个数 Number of accumulations (个/m ³)
Φ76	128	0.90	50	7000



► Introduction to physical objects and products

Spherical Suspended Packing, also known as porous rotary suspended filler, is the latest series of products developed among various fillers adopted for domestic sewage treatment and biofilm treatment technologies. It features an all-three-dimensional structure in the biochemical treatment of sewage, with a large specific surface area. It can be directly put into use without fixation, is easy to form biofilms, and does not clog. This series of suspended ball fillers is injection-molded from polypropylene materials and is divided into inner and outer double spheres. The outer part is a hollow fishing net-shaped sphere, and the inner part can be filled with different biological carriers to adapt to different wastewater biochemical treatment processes. It mainly acts as a carrier for biofilms and also has the function of intercepting suspended solids. It boasts the characteristics of strong biological adhesion, large specific surface area, high porosity, good chemical and biological stability, durability, no dissolution of harmful substances, no secondary pollution, UV resistance, aging resistance, and strong hydrophilicity.

► Product Technical Specifications

规格 Specification (mm)	耐酸碱性 Acid and alkali resistance	连续耐热 (°C) Continuous heat resistance	脆化温度(°C) Brittle temperature	比表面积 Specific surface area (m ² /m ³)	空隙率 Porosity	材料比重 Specific gravity of material	堆积个数 Number of accumulations (个 /m ³)
Φ80	稳定	80-90	-10°C	800	0.95	0.92-1.08	2000
Φ100	稳定	80-90	-10°C	700	0.96	0.92-1.08	1000
Φ150	稳定	80-90	-10°C	380	0.98	0.92	300



► Introduction to physical objects and products

Biospheres are an emerging type of biological filtration media featuring an ant-nest structure with a pore density of 50 ppi and a diameter of 100 mm. Compared with media with smaller pore spacing, they provide a larger surface area for bacterial colonization and are suitable for various types of filtration systems. Made from environmentally friendly plastic, bio-balls are hollow spheres capable of supporting a large number of nitrifying bacteria. Water flows through them without creating resistance; their hollow structure divides water into fine streams and breaks up large pieces of dirt, resulting in excellent filtration performance. Due to their light weight and portability, bio-balls are applied not only in marine biological filtration systems but also in freshwater ones. The working principle of bio-balls is to guide water flow through the tortuous internal passages, prolonging the contact time of water, while the irregularly arranged multi-column structure inside provides attachment sites for nitrifying bacteria to achieve biological filtration.

► Product Technical Specifications

规格 Specification (mm)	比表面积 Specific surface area (m ² /m ³)	比重 specific gravity (G/cm ³)	堆积重量 Accumulated weight (Kg/m ³)	堆积个数 Number of accumulations (个 /m ³)
Φ100	2000	0.95	85	1000



► Introduction to physical objects and products

MBBR packing is a new type of microbial carrier. Its main material is high-density polyethylene (HDPE), which can be selectively modified according to different application fields, and its specific gravity can also be appropriately adjusted.

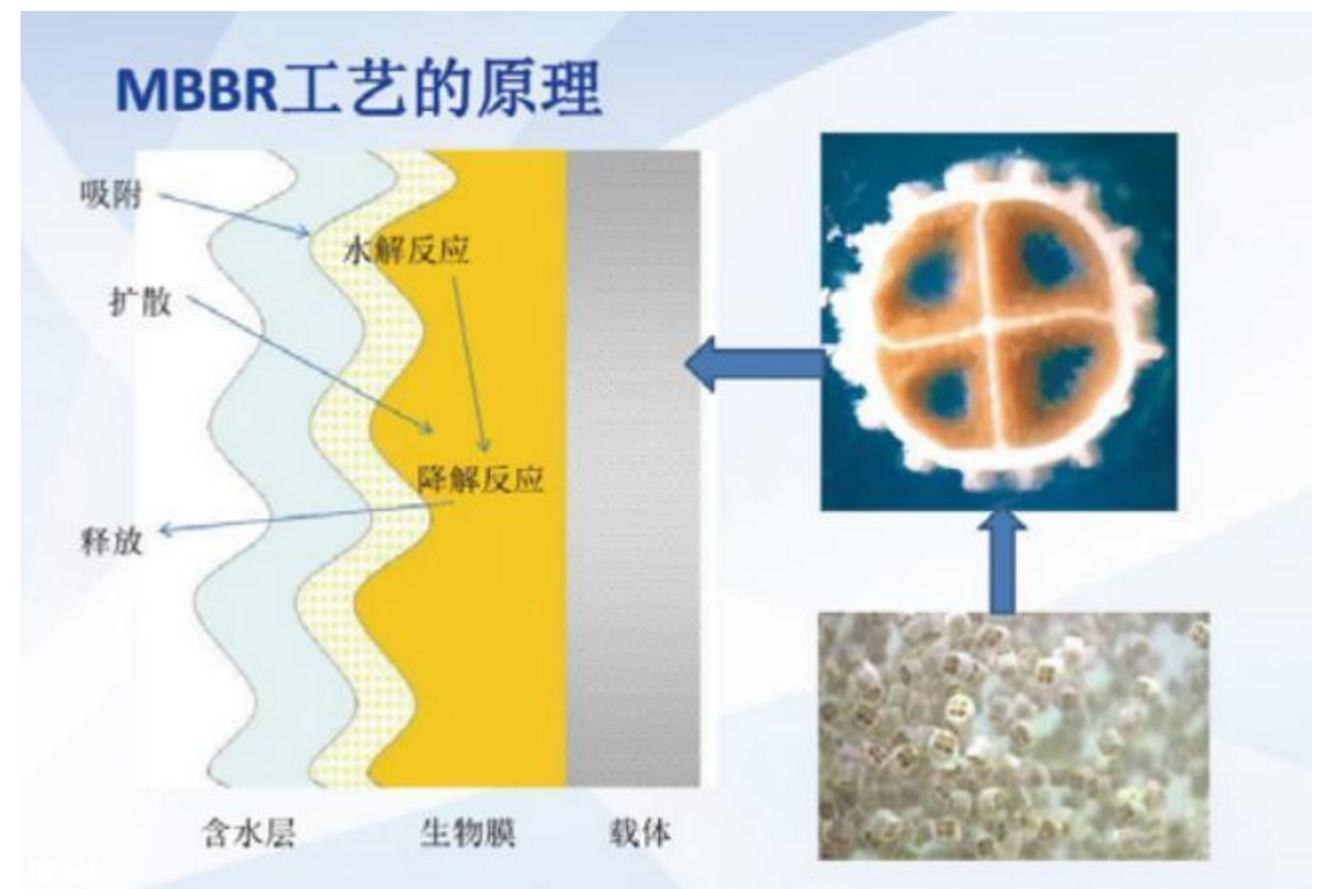
MBBR packing do not degrade when immersed in wastewater for a long time, nor do they exert toxic effects on microorganisms.

Featuring a special structure, MBBR packing possess excellent capabilities for nitrogen removal and organic matter decomposition. They are mainly applied in high-ammonia nitrogen wastewater treatment, aquaculture circulating water systems, small-scale rural domestic sewage treatment, and the upgrading and capacity expansion of traditional wastewater treatment plants. Due to their high specific surface area, they can also replace traditional packing materials in waste gas treatment.

► Product Technical Specifications

型号 Model	Φ10	Φ25
规格 Specification	Φ10x10mm	Φ25x10mm
材质 Material	HDPE	HDPE
比表面积 Specific surface area (m ² /m ³)	>1200	>500
比重 Specific gravity (g/cm ³)	0.93-1.08	0.93-1.08
空隙率 Porosity (%)	>85	>90
投配率 Dosing rate (%)	15-60	15-60
堆积重量 Accumulated weight (kg/m ³)	120	100
挂膜时间 Biofilm formation time (day)	5-15	5-15
硝化效率 Nitrification efficiency (gNH ₄ -N/m ³ · d)	400-1200	300-800
BOD ₅ 氧化效率 Oxidation efficiency (gBOD ₅ /m ³ · d)	2000-15000	2000-8000
使用寿命 service life (year)	>10	>10

► Schematic diagram of product structure





► Introduction to physical objects and products

In the process of sewage treatment, certain methods and equipment are used to forcibly inject air into the sewage, enabling the sewage in the tank to contact and oxygenate with air, and agitate the liquid to accelerate the transfer of oxygen from the air into the liquid. This prevents suspended solids in the tank from sinking, enhances the contact between organic matter, microorganisms and dissolved oxygen in the tank, and oxidizes and decomposes organic matter in the sewage. This process of forcibly aerating the sewage is known as aeration.

At present, the most widely used device in China is the aerator. A fan is connected to pipelines laid inside the tank, and the aeration devices on the conveying pipelines are collectively referred to as aerators. Aerators are further subdivided into several categories: disc aerators, long strip plate aerators, ordinary disc aerators, inverted umbrella rotary mixing aerators, and flat disc aerators.

► Product Technical Specifications

型号 Model	microporous aeration disc		flat aeration disc		Rotary mixing aerator
曝气器外径 Outer diameter	Φ215mm	Φ260mm	Φ215mm	Φ300mm	Φ260mm
服务面积 Service area	0.25-0.55m ² /个	0.35-0.85m ² /个	0.25-0.55m ² /个	0.8-1.5m ² /个	0.45-0.55m ² /个
曝气膜片运行平均孔隙 Average operating pore size of membrane	70-120微米	70-120微米	70-120微米	70-120微米	/
空气流量 Air flow rate	0-3m ³ /个 h	0-5m ³ /个 h	0-3m ³ /个 h	0-8.3m ³ /个 h	2.0-4.0m ³ /个 h
氧总转移系数 Overall oxygen transfer coefficient	kla(20°C) 0.204-0.337min ⁻¹	kla(20°C) 0.204-0.337min ⁻¹	kla(20°C) 0.204-0.337min ⁻¹	kla(20°C) 0.204-0.337min ⁻¹	kla(20°C) 0.204-0.337min ⁻¹
氧利用率 Oxygen utilization rate	(水深 3.2m) 18.4-27.7%	(水深 3.2m) 18.4-27.7%	(水深 4.5m) 20-30%	(水深 4.5m) 23-32%	(水深 4m) 15-20%
充氧能力 Oxygenation capacity	0-0.228KgO ₂ /h	0-0.407KgO ₂ /h	0-0.228KgO ₂ /h	0-0.721KgO ₂ /h	0-16 KgO ₂ /h
充氧动力效率 Oxygenation efficiency	4.46-5.19 KgO ₂ /kwh	4.46-5.19 KgO ₂ /kwh	> 7KgO ₂ /kwh	> 7KgO ₂ /kwh	> 5KgO ₂ /kwh
曝气阻力 Resistance to aeration	2000-3800pa	2000-4000pa	2000-3800pa	2000-4200pa	2000-4000pa
使用温度 Operating temperature	< 70°C	< 70°C	< 70°C	< 70°C	< 70°C
膜片厚度 Membrane thickness	2.1mm	2.2mm	2.1mm	2.3mm	/



▶ ABS Adjustable Bracket

This clamp does not require stainless steel screws. Thanks to its precision design, the clamp is easy to install and secure, with a service life of up to several decades.

- Product specifications: Φ50 / Φ63 / Φ75



▶ ABS Adjustable Bracket

- Easy to install, reliable in use, and with a large adjustment range
- ABS material is acid and alkali resistant and corrosion resistant.
- Product specifications: Φ32 / Φ40 / Φ50 / Φ63 / Φ75 / Φ90



▶ Introduction to physical objects and products

Tube aerator: The membrane tube type microporous aeration tube is manufactured by modified ABS injection molding and extrusion molding. The membrane tube is sleeved outside the support tube, and both ends are locked with SUS316L seamless pipe clamps.

The membrane tube adopts modern production equipment, proprietary raw material formulas, and high-precision perforation technology (with a bubble diameter of only 1–2 mm), ensuring that all manufactured membrane tubes feature high strength, corrosion resistance and aging resistance. Types of rubber membrane tubes include: EPDM membrane tubes, EPDM membrane tubes coated with polytetrafluoroethylene, and silicone membrane tubes.

▶ Product Technical Specifications

型号 Model	Φ65*500	Φ65*750	Φ65*1000
曝气器外径 Outer diameter Φ*Lmm	65*500	65*750	65*1000
氧利用率 Outer diameter of the aerator	水深5.0米 水深6.0米 水深7.0米	23-32% 34-39.5% 31-45%	23-32% 34-39.5% 31-45%
服务面积 Service area	0.82-1.26m ² /根	0.98-2.11m ² /根	0.98-2.35m ² /根
空气流量 Air flow	1.7-6.8m ³ /h	3.4-13.6m ³ /h	3.4-17m ³ /h
开孔数量 Number of openings	8080 个	10300 个	13880 个
气泡直径 Bubble diameter	0.8-2.0mm	0.8-2.0mm	0.8-2.0mm
充氧能力(水深 5m) Oxygenation capacity	> 7.5KgO ₂ /kwh	> 7.5KgO ₂ /kwh	> 7.5KgO ₂ /kwh
曝气阻力 Aeration resistance	2000-3800pa	2000-3800pa	2000-3800pa
延伸能力 Extended capabilities	> 600%	> 600%	> 600%
张力强度 Tensile strength	> 13.8kpa	> 13.8kpa	> 13.8kpa

新征程
正昂首阔步
共享碧水蓝天
改善生态环境



► Introduction to physical objects and products

The single-orifice membrane aerator is a key component in the BAF aeration system, which can provide sufficient dissolved oxygen for aerobic microorganisms.

It is not affected by the temperature difference between the pool and the ambient air, nor by the height of the filter tank or the void ratio of the biological ceramsite filter media. It features a unique concave-convex structure, is not easy to be clogged, and can withstand the stacking pressure of the biological ceramsite filter media.

► Product Specifications

型号规格 Specification (mm)	上、下夹管 (mm) upper and lower clamping pipes	单孔膜直径 (mm) Diameter of single- hole membrane	单孔直径 (mm) single hole diameter	池底空气分管尺寸 (mm) Size of the air distribution pipe at the tank bottom
Φ25	43*43	Φ33	Φ1	depending on the air flow velocity

► Technical ParametersA

水深 Water Depth (mm)	空气流量 Air Flow Rate (m ³ /piece-h)	氧利用率 Oxygen Utilization Efficiency (%)	曝气阻力 Aeration Head Loss (Pa)	安装密度 Installation Density (pieces/m ²)	安装高度 Installation Height (mm)
4.5	0.20-0.45	22	≤ 3000	36-49	100-200



Product details

► Introduction to physical objects and products

Combined packing integrates the strengths of flexible and semi-flexible packing while eliminating their limitations, making it an ideal solution for sewage biochemical treatment. With a plastic ring framework and firmly fixed vinylon filaments, it ensures uniform filament distribution in sewage, enabling easy biofilm growth and renewal, and excellent adaptability to high-concentration wastewater. Its innovative double-ring structure, with aldehyde fibers or polyester filaments pressed onto the rings and snowflake-shaped inner branches, not only supports biofilm attachment but also effectively shears air bubbles, boosting oxygen transfer and utilization. This ensures full water-gas-biofilm exchange for highly efficient organic matter removal. It is the optimal choice for high-intensity aeration and turbulent flow conditions, with outstanding performance in biofilm management and sewage adaptability.

► Scope of Application

It is used in sewage and wastewater treatment projects, supporting equipment such as contact oxidation towers, oxidation tanks and oxidation channels. It serves as a biological carrier for wastewater treatment via the biological contact oxidation process and anaerobic fermentation process.

► Product Technical Specifications

Diameter: ϕ 150mm, ϕ 160mm Spacing: 80mm, 100mm
 Material: Polyethylene and Aldehyde-Treated Fiber Filaments



Product details

► Introduction to physical objects and products

Braided bio-rope packing is made from specially treated chemical fibers, offering a full range of biological contact solutions for wastewater with varying concentrations and qualities. Widely used in river restoration, chemical, textile, and food wastewater treatment, it stably supports slow-growing microbes like nitrifiers and denitrifiers. Its continuous, non-concentrated biofilm detachment prevents effluent quality issues, while the attached food chain minimizes excess sludge. With stable effluent, easy maintenance, and adaptability to variable loads, it delivers a long service life of over 10 years.

► Product Technical Specifications

Diameter: ϕ 60mm, ϕ 80mm
 Material: Made of a combination of polypropylene aldehyde fibers, polyester filaments, and vinylon, with customizable length.



► Introduction to physical objects and products

Elastic filler, also known as three-dimensional elastic filler, is made of high-quality polyolefin raw materials resistant to corrosion, high temperature and aging, with added additives for hydrophilicity, adsorption and anti-thermal oxygen performance. Adopting special drawing and strand making processes, the elastic strands are interspersed and fixed on the high-strength polyethylene central rope, showing a three-dimensional distribution.

► Scope of Application

Suitable for industrial organic wastewater, domestic sewage of various concentrations, aerated biological filters and other similar systems.

► Product Technical Specifications

Specifications: $\Phi 150\text{mm}$, $\Phi 180\text{mm}$, $\Phi 200\text{mm}$
 Material: Polyolefin, Polyethylene; Length is customizable.



► Introduction to physical objects and products

Curtain-type bio-rope packing is a modified blend of vinylon aldehyde fiber and polypropylene. Known as "synthetic cotton", vinylon offers cotton-like hygroscopicity, delivering superior hydrophilicity and biocompatibility. Insoluble in most solvents, this modified packing features permanent hydrophilic, bio-affinitive and charged properties, with a large specific surface area and high void ratio. It effectively shears and adsorbs air bubbles to boost DO transfer, while offering excellent biochemical stability and mechanical strength, ensuring rapid, high-capacity biofilm attachment and long-term operational stability.

► Product Material

Blended from vinylon aldehyde fiber and polypropylene fiber.

► Product Technical Specifications

Specification: $\Phi 60\text{mm}$	Finished Weight: $\approx 1 \text{ kg/m}^3$	Void Ratio: $>99.9\%$
COD Loading: $5-15 \text{ kg/m}^3 \cdot \text{d}$	Nitrogen (N) Loading: $1.0-2.0 \text{ kg/m}^3 \cdot \text{d}$	Vinylon Aldehyde Fiber Tuft (Height): 25mm
Specific Surface Area: $7000-8000 \text{ m}^2/\text{m}^3$	Biomass Loading: $15000-2000 \text{ mg/L}$	Dissolved Oxygen (DO) Efficiency: $15\%-20\%$



► Introduction to physical objects and products

Made of high-strength ABS plastic, our filter nozzles offer excellent compressive strength and impact resistance. With reinforced threads and a rubber gasket, they ensure a permanent, leak-proof connection. The enhanced base slits eliminate dead zones and prevent sludge buildup, making them ideal for water treatment filters, filter tanks, water softening systems and ion exchange columns.

► Product Technical Specifications

Model (mm)	Shape	Flow Rate (m³/h)	Shaft Diameter (mm)	Slot Length (mm)	Slot Width (mm)	Slot Gap (mm)	Total Length (mm)	Total Area (mm²)
Short-Handle φ32	Tower	1.0	DN25	40	47	0.25	135	470
Short-Handle φ20	Tower	0.5	DN15	36	28	0.25	60	252
Long-Handle φ25	Umbrella	0.5	DN20	40	25	0.25	292	250



► Introduction to physical objects and products

Our rotary grille decontamination machine automatically and continuously remove all types of impurities from fluids for efficient solid-liquid separation. As a critical pre-treatment solution, they are widely used in municipal sewage, tap water, and power plant water intake systems, and are essential for industrial processes including textiles, food, papermaking, and leather production.

► Product Technical Specifications

Model	HGC300	HGC600	HGC1000	HGC1200	HGC1500
Equipment Width (mm)	300	600	1000	1200	1500
Equipment Height (mm)	3285-14350	3285-14350	3285-14350	3285-14350	3285-14350
Motor Power (kW)	0.4-0.75	0.55-1.1	1.1-2.2	1.1-2.2	1.5-3.0
Installation Angle (°)	60-80	60-80	60-80	60-80	60-80
Rake Tooth Bar Spacing (mm)	1-50	1-50	1-50	1-50	1-50